

SURGICAL RESOLUTION OF LARYNGEAL PARALYSIS IN CANINE PATIENTS.

BIBLIOGRAPHIC COMPARISON OF THE DIFFERENT SURGICAL TECHNIQUES.

INTRODUCTION

Laryngeal paralysis (LP) is a common cause of higher respiratory tract obstruction in which the labrador retriever is a breed over-represented. Mostly, the cause of the disease is given by the acquired form, although the congenital form is linked to some breeds of dogs. Definitive diagnosis can be made by an evaluation of laryngeal function under light plane of anaesthesia.

OBJECTIVES

- To describe the different surgical techniques for the resolution of LP as well as the outcome of each one.
- To establish if there are other surgical techniques that can offer similar or even better outcomes than unilateral arytenoid lateralisation (UAL).
- To assess whether or not the use of several techniques simultaneously provide better results in patients with LP.

SURGICAL TREATMENT FOR LARYNGEAL PARALYSIS

INTRA-LARYNGEAL PROCEDURES

- A) Implantable devices
- B) Partial laryngectomy
- C) Castellated laryngofissure

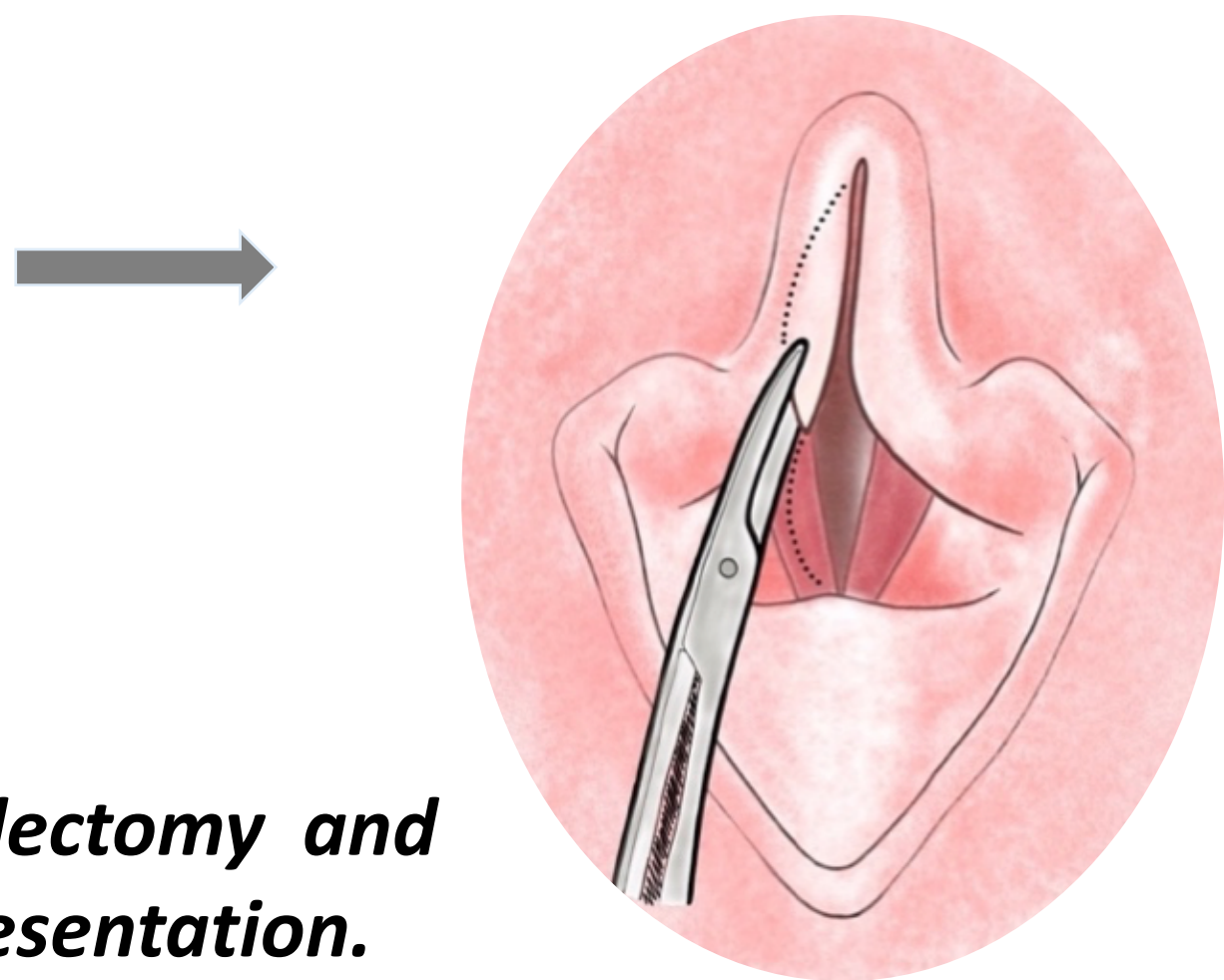


Figure 1. Partial arytenoidectomy and ventriculocordectomy representation.

EXTRA-LARYNGEAL PROCEDURES

- D) Reinnervation techniques
- E) Unilateral arytenoid lateralisation

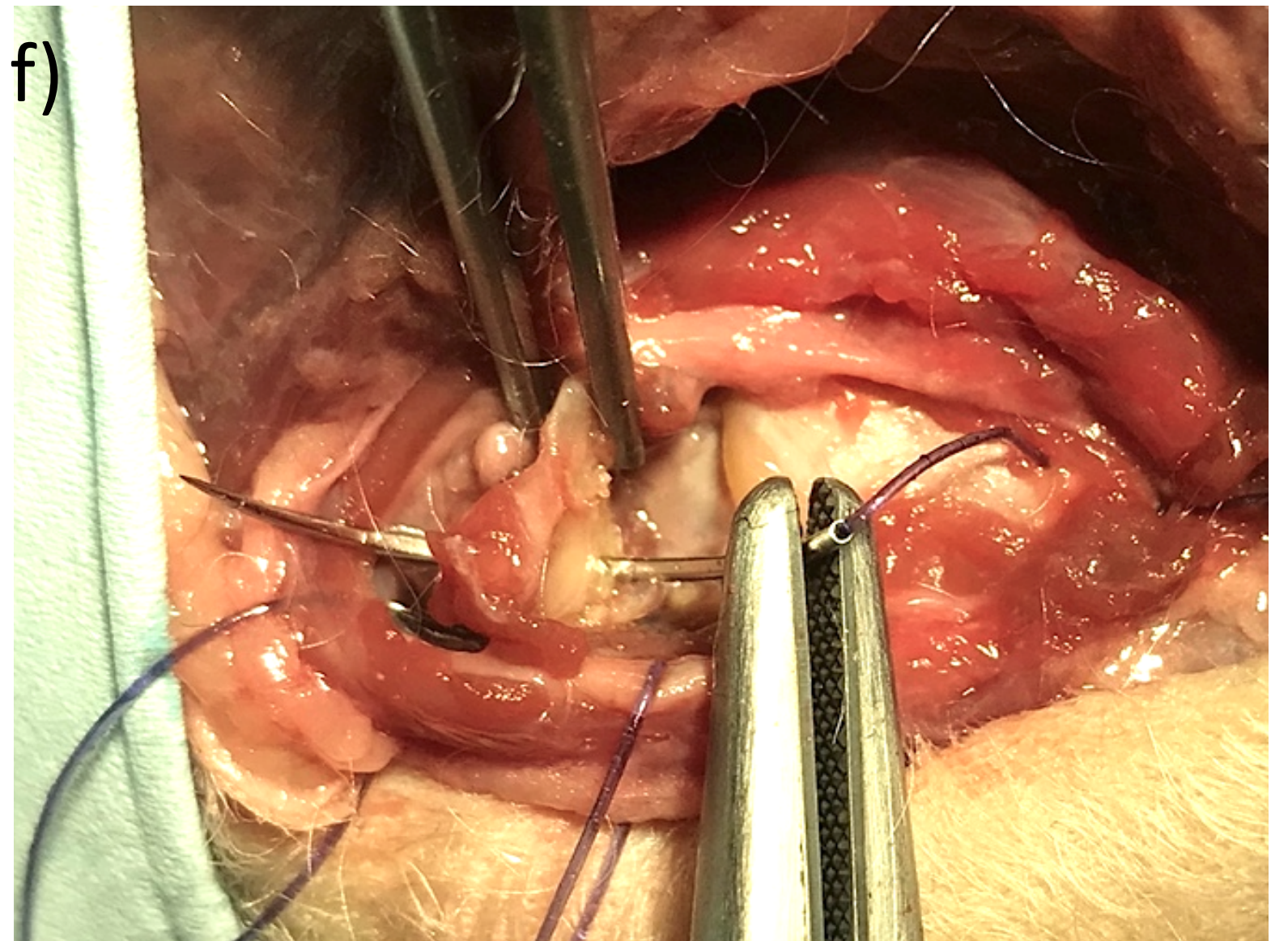
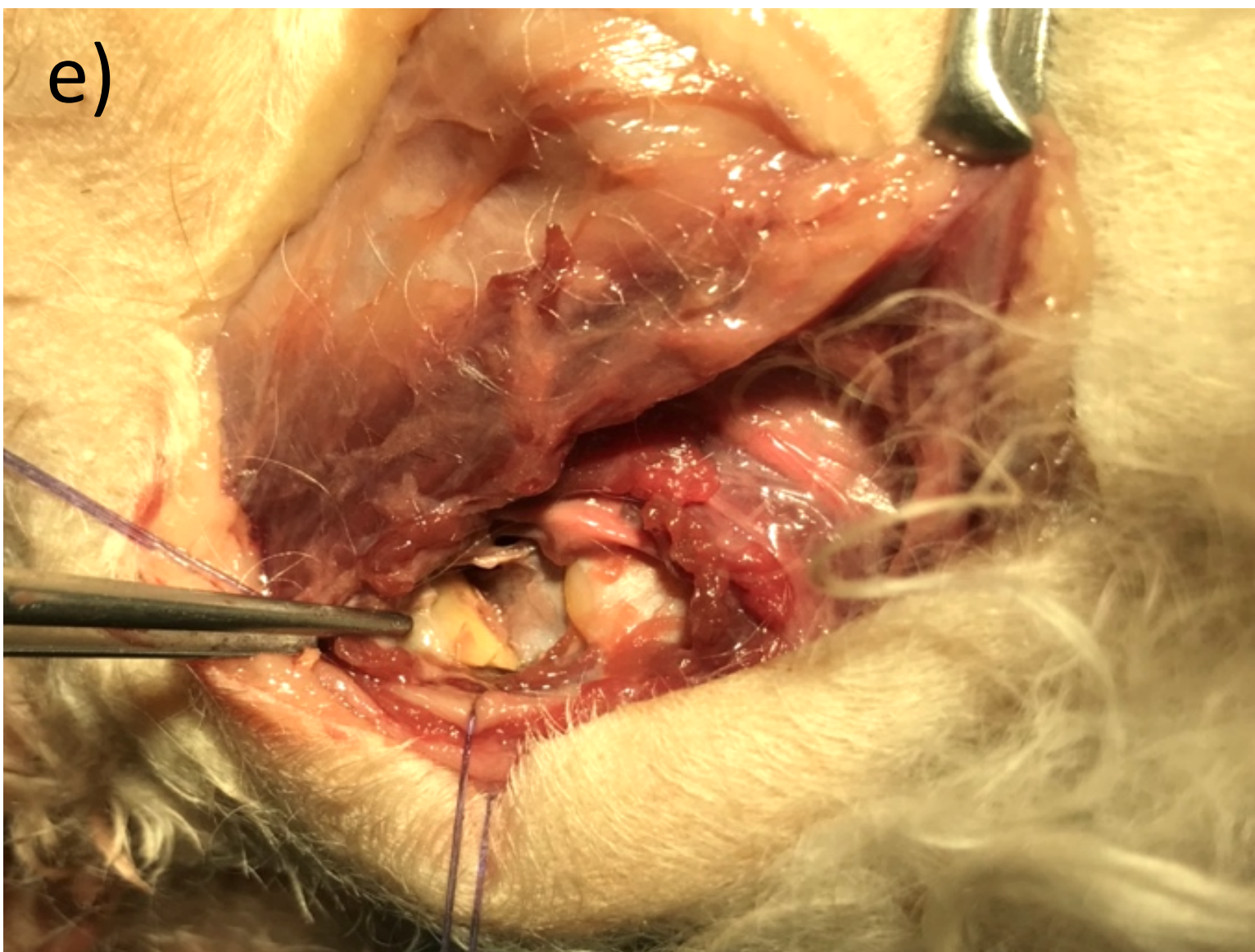
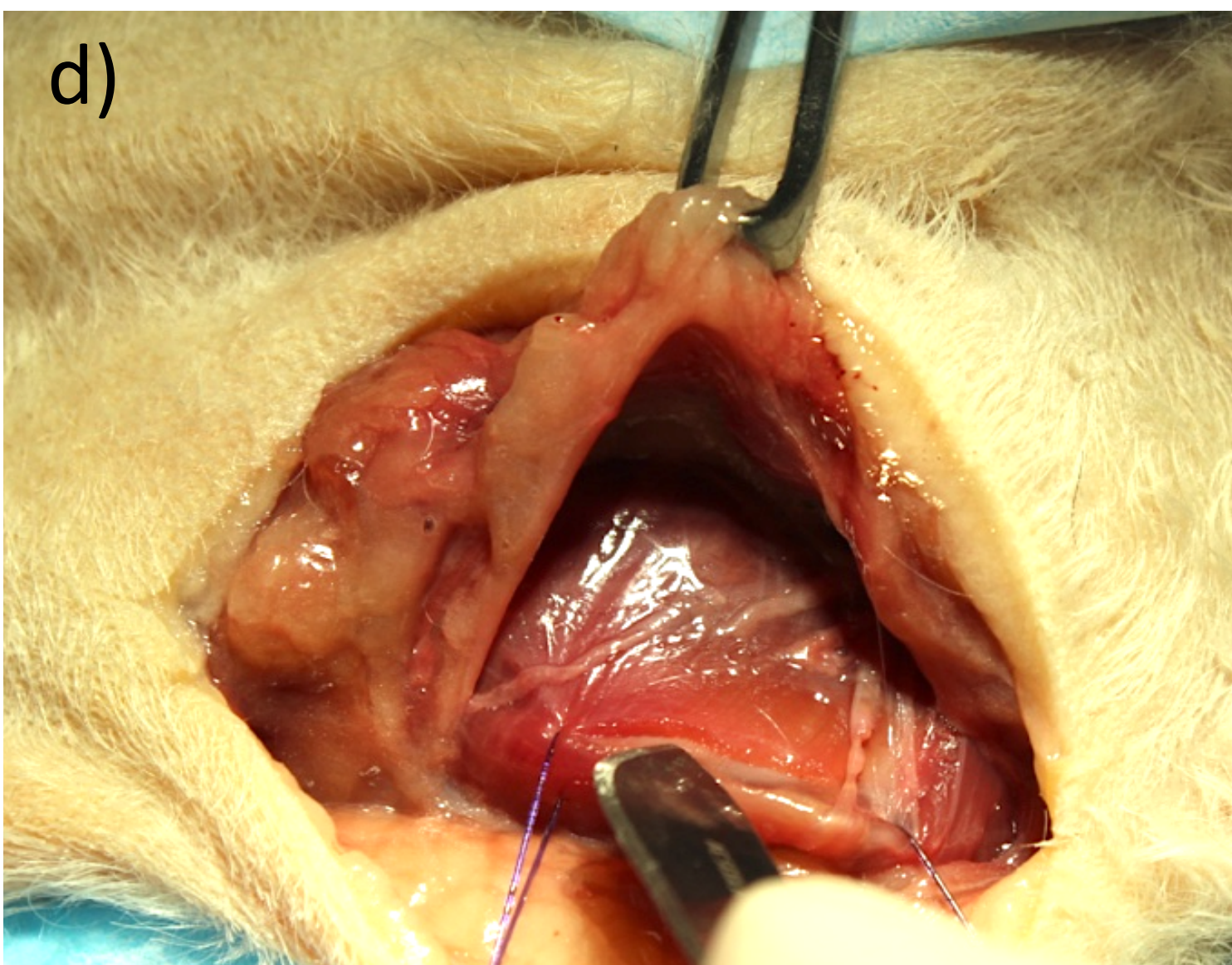
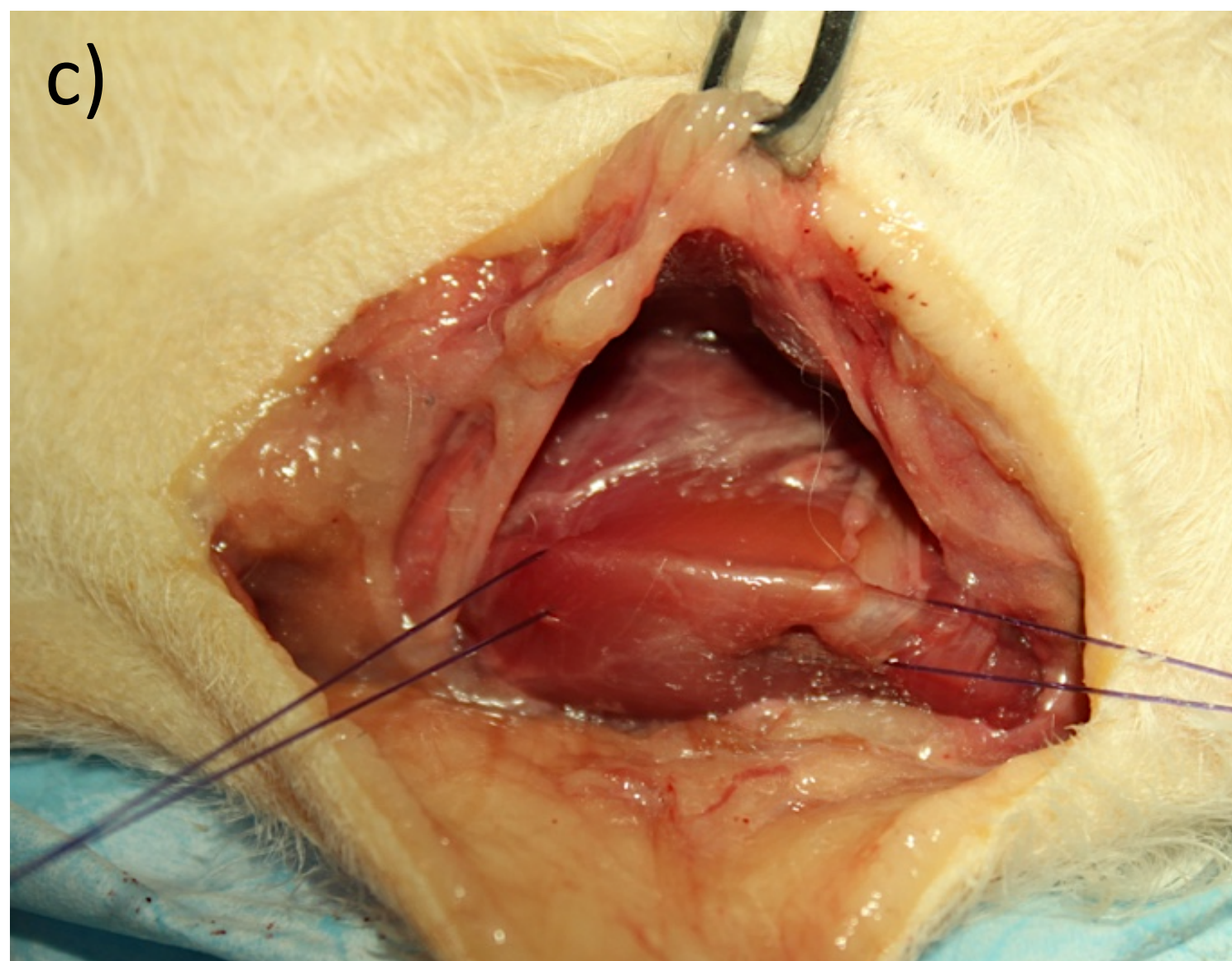
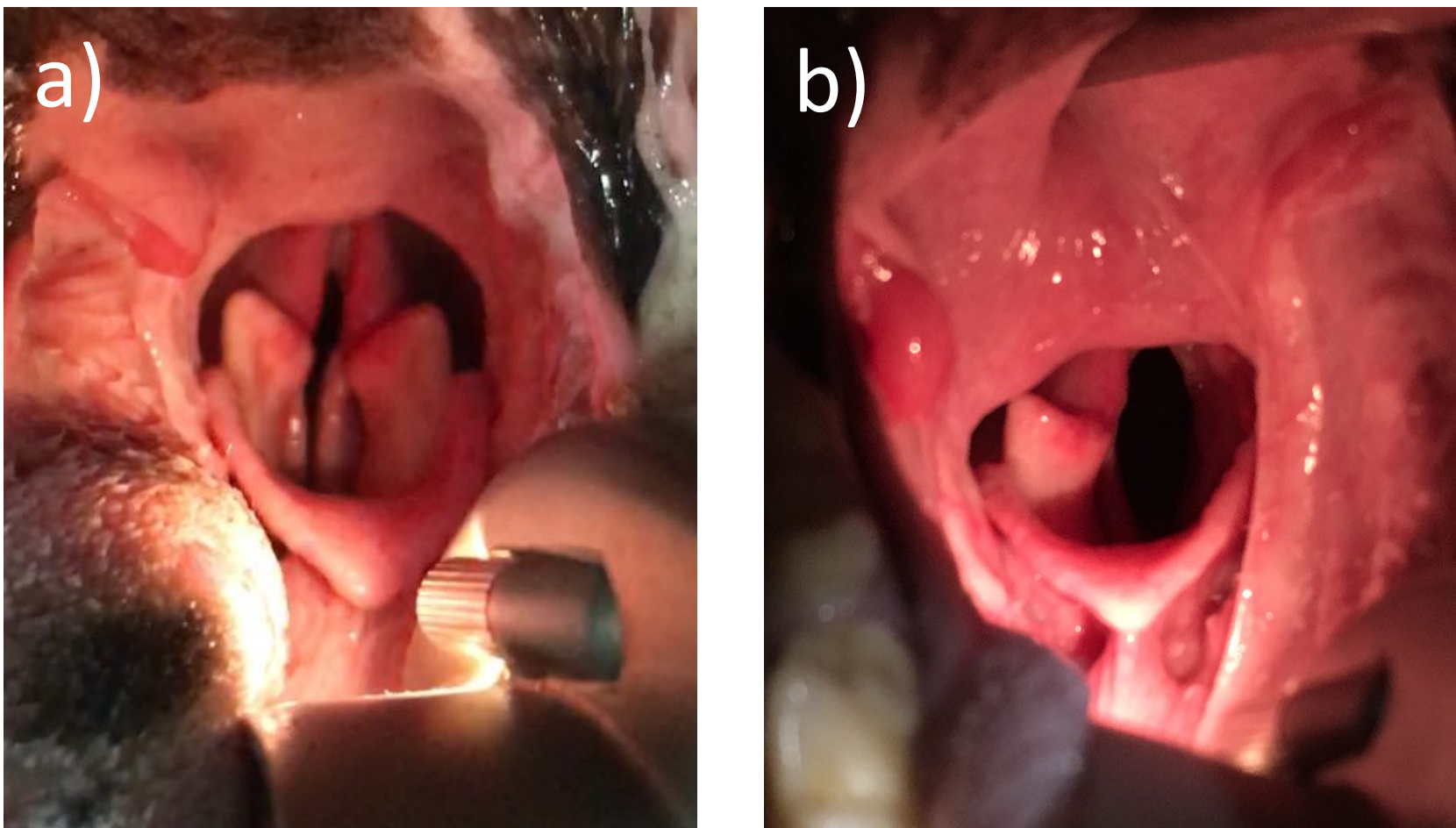


Figure 2. Unilateral arytenoid lateralisation: Intraoperative laryngeal examination before (a) and after (b) the suture was tied to complete the surgery; c) Stay suture placed through the lamina of the thyroid cartilage; d) Thyropharyngeus muscle transected across the muscle fibres; e) Cricothyroid joint opened; f) Cricothyroid suture placed from the caudal edge of the cricoid cartilage to the articular surface of the arytenoid cartilage.

DISCUSSION

	UAL	PARTIAL LARYNGECTOMY	PERMANENT TRACHEOSTOMY
Experience needed	High	Low	Low
Owner acceptance	Good	Good	Fair-Poor
Postoperative care	Low	Low	High
Improvement	90-97%	88-90%*	50%
Aspiration pneumonia	10-32%	10-33%	23-25%
Mortality	0-14%	14-30%	24-47%

Table 1. Comparison of the most used techniques nowadays. Including the reported percentages of improvement, aspiration pneumonia and mortality rate.
*Results using diode laser can be up to 100%.

CONCLUSIONS

Currently, the most used techniques for the resolution of LP are UAL, partial laryngectomy and in some cases permanent tracheostomy. The possible use of implantable devices and reinnervation techniques is still being studied.

UAL is the technique with the best outcome in comparison to the techniques mentioned before. However, aspiration pneumonia remains the main complication.

Nowadays, there aren't enough studies to assess the concurrent use of different surgical procedures in the same patient.